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Melisaris et al.

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(54) **VISCOSITY STABILIZATION OF RADIATION-CURABLE FILLED COMPOSITIONS**

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ABSTRACT

(62) Division of application No. 09/115,086, filed on Jul. 14, 1998, now Pat. No. 6,099,787.
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The present invention relates to a process for the production of three-dimensional articles by stereolithography using a radiation-curable composition comprising a mixture of at least one cationically polymerizable compound and/or at least one free radical polymerizable compound, at least one filler material and at least one photoinitiator for cationic and/or radical polymerization. An organic viscosity stabilizer material may be brought into contact with the composition to substantially delay or prevent undesirable viscosity increase and subsequently premature polymerization. A filler material is optionally added to the composition in an effective amount to at least delay or prevent a significant increase in viscosity and polymerization. The process is particularly suitable for stabilizing resins in stereolithography baths. The present invention also relates to a cured articles resulting from said process and a process for manufacturing said radiation-curable compositions and stabilized compositions resulting therefrom.

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33 Claims, No Drawings